a reflector configured to direct the two components from the birefringent element assembly back through another birefringent element assembly to allow optical interference to occur thereof; and

wherein each spatial birefringent element defines two light paths, each light path having a different optical path length and wherein a difference in optical path length between the two paths is provided by a material having an index of refraction greater than one which is disposed within at least a portion of one of the first and second paths.

26. (unchanged) The interleaver as recited in claim 25, wherein the birefringent element assembly comprises a plurality of spatial birefringent elements.

27. (unchanged) The interleaver as recited in claim 25, wherein the birefringent element assembly comprises a first birefringent element having an equivalent angular orientation of φ_1, a second birefringent element having an equivalent angular orientation of φ_2 and

a third birefringent element having an equivalent angular orientation of φ_3;

wherein an order of the first birefringent element, second birefringent element, and third birefringent element is selected from the group consisting of:

first birefringent element, second birefringent element, third birefringnet element;

third birefringent element, second birefringent element, first birefringent element; and

wherein the equivalent angular orientations are with respect to an equivalent polarization direction of light entering the birefrigent element assembly.

28. (unchanged) The interleaver as recited in claim 25, wherein the birefringent element assembly and the reflector are configured so as to facilitate interleaving of a plurality of input light beams simultaneously.

29. (unchanged) The interleaver as recited in claim 25, wherein the interleaved channels have spacing which is tunable.